Jose Garcia de la Torre

List of Publications by Year
in descending order

215 papers	10,824 citations	50276 46 h-index	36028 97 g-index
218 all docs	218 docs citations	218 times ranked	9216 citing authors

#	Article	IF	Citations
1	Calculation of Hydrodynamic Properties of Globular Proteins from Their Atomic-Level Structure. Biophysical Journal, 2000, 78, 719-730.	0.5	1,001
2	Hydrodynamic properties of complex, rigid, biological macromolecules: theory and applications. Quarterly Reviews of Biophysics, 1981, 14, 81-139.	5.7	612
3	Prediction of Hydrodynamic and Other Solution Properties of Rigid Proteins from Atomic- and Residue-Level Models. Biophysical Journal, 2011, 101, 892-898.	0.5	569
4	Comparison of theories for the translational and rotational diffusion coefficients of rodâ€like macromolecules. Application to short DNA fragments. Journal of Chemical Physics, 1984, 81, 2047-2052.	3.0	501
5	HYDRONMR: Prediction of NMR Relaxation of Globular Proteins from Atomic-Level Structures and Hydrodynamic Calculations. Journal of Magnetic Resonance, 2000, 147, 138-146.	2.1	493
6	Rotational dynamics of rigid, symmetric top macromolecules. Application to circular cylinders. Journal of Chemical Physics, 1980, 73, 1986-1993.	3.0	385
7	Translational friction coefficients of rigid, symmetric top macromolecules. Application to circular cylinders. Journal of Chemical Physics, 1979, 71, 2581-2587.	3.0	371
8	HYDRO: a computer program for the prediction of hydrodynamic properties of macromolecules. Biophysical Journal, 1994, 67, 530-531.	0.5	293
9	Hydrodynamic properties of rodlike and disklike particles in dilute solution. Journal of Chemical Physics, 2003, 119, 9914-9919.	3.0	279
10	Hydrodynamic Properties of Rigid Particles: Comparison of Different Modeling and Computational Procedures. Biophysical Journal, 1999, 76, 3044-3057.	0.5	249
11	Hydrodynamic properties of macromolecular complexes. I. Translation. Biopolymers, 1977, 16, 1747-1763.	2.4	238
12	The Conformation of Serum Albumin in Solution: A Combined Phosphorescence Depolarization-Hydrodynamic Modeling Study. Biophysical Journal, 2001, 80, 2422-2430.	0.5	234
13	Determination of intrinsic viscosities of macromolecules and nanoparticles. Comparison of single-point and dilution procedures. Colloid and Polymer Science, 2008, 286, 1223-1231.	2.1	194
14	Aggregation behaviour of gold nanoparticles in saline aqueous media. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	160
15	Improved Calculation of Rotational Diffusion and Intrinsic Viscosity of Bead Models for Macromolecules and Nanoparticles. Journal of Physical Chemistry B, 2007, 111, 955-961.	2.6	141
16	A secondâ€order algorithm for the simulation of the Brownian dynamics of macromolecular models. Journal of Chemical Physics, 1990, 92, 2015-2018.	3.0	124
17	Molecular dynamics simulation of a charged biological membrane. Journal of Chemical Physics, 1996, 104, 2713-2720.	3.0	118
18	Brownian Dynamics Simulation of Rigid Particles of Arbitrary Shape in External Fields. Biophysical Journal, 2002, 83, 3039-3048.	0.5	99

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19	Hydration from hydrodynamics. General considerations and applications of bead modelling to globular proteins. Biophysical Chemistry, 2001, 93, 159-170.	2.8	95
20	Monte Carlo calculation of hydrodynamic properties of freely jointed, freely rotating, and real polymethylene chains. Macromolecules, 1982, 15, 148-154.	4.8	88
21	Equivalent Radii and Ratios of Radii from Solution Properties as Indicators of Macromolecular Conformation, Shape, and Flexibility. Biomacromolecules, 2007, 8, 2464-2475.	5.4	86
22	Transport properties and hydrodynamic centers of rigid macromolecules with arbitrary shapes. Biopolymers, 1980, 19, 751-766.	2.4	84
23	The molecular weight distribution and conformation of citrus pectins in solution studied by hydrodynamics. Carbohydrate Polymers, 1991, 16, 1-15.	10.2	81
24	Hydrodynamics of macromolecular complexes. III. Bacterial viruses. Biopolymers, 1977, 16, 1779-1793.	2.4	79
25	Molecular flexibility of citrus pectins by combined sedimentation and viscosity analysis. Food Hydrocolloids, 2008, 22, 1435-1442.	10.7	78
26	SOLPRO: theory and computer program for the prediction of SOLution PROperties of rigid macromolecules and bioparticles. European Biophysics Journal, 1997, 25, 361-372.	2.2	76
27	Interpretation of 15N NMR relaxation data of globular proteins using hydrodynamic calculations with HYDRONMR. Journal of Biomolecular NMR, 2002, 23, 139-150.	2.8	76
28	Calculation of hydrodynamic properties of small nucleic acids from their atomic structure. Nucleic Acids Research, 2002, 30, 1782-1788.	14.5	73
29	A Multilaboratory Comparison of Calibration Accuracy and the Performance of External References in Analytical Ultracentrifugation. PLoS ONE, 2015, 10, e0126420.	2.5	71
30	Hydrodynamic properties of macromolecular complexes. IV. Intrinsic viscosity theory, with applications to once-broken rods and multisubunit proteins. Biopolymers, 1978, 17, 1605-1627.	2.4	70
31	Hydrodynamics of macromolecular complexes. II. Rotation. Biopolymers, 1977, 16, 1765-1778.	2.4	69
32	Monte Carlo calculations for linear chains and star polymers with intermolecular interactions. 3. Dimensions and hydrodynamic properties in good solvent conditions. Macromolecules, 1987, 20, 342-346.	4.8	69
33	The influence of mono and divalent cations on dilute and non-dilute aqueous solutions of sodium alginates. Carbohydrate Polymers, 2010, 80, 248-253.	10.2	68
34	Crystallohydrodynamics for solving the hydration problem for multi-domain proteins: open physiological conformations for human IgG. Biophysical Chemistry, 2001, 93, 181-196.	2.8	65
35	Coordinate Systems for Modeling the Hydrodynamic Resistance and Diffusion Coefficients of Irregularly Shaped Rigid Macromolecules. Macromolecules, 1980, 13, 960-964.	4.8	61
36	Improved hydrodynamic interaction in macromolecular bead models. Journal of Chemical Physics, 1999, 111, 4817-4826.	3.0	61

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37	Effects from bead size and hydrodynamic interactions on the translational and rotational coefficients of macromolecular bead models. Journal of Chemical Physics, 1983, 79, 2454-2460.	3.0	59
38	Monte Carlo calculation of hydrodynamic properties of linear and cyclic polymers in good solvents. Macromolecules, 1991, 24, 593-598.	4.8	59
39	Solution Conformation of Wild-Type and Mutant IgG3 and IgG4 Immunoglobulins Using Crystallohydrodynamics: Possible Implications for Complement Activation. Biophysical Journal, 2007, 93, 3733-3744.	0.5	59
40	Hydrodynamic properties of rigid macromolecules composed of ellipsoidal and cylindrical subunits. Biopolymers, 2002, 63, 163-167.	2.4	58
41	Dimensions of short, rodlike macromolecules from translational and rotational diffusion coefficients. Study of the gramicidin dimer. Biopolymers, 1984, 23, 611-615.	2.4	56
42	An Analytical Solution to the Problem of the Orientation of Rigid Particles by Planar Obstacles. Application to Membrane Systems and to the Calculation of Dipolar Couplings in Protein NMR Spectroscopy. Journal of the American Chemical Society, 2001, 123, 12037-12047.	13.7	54
43	Small Cationic Peptides: Influence of Charge on Their Antimicrobial Activity. ACS Omega, 2018, 3, 5390-5398.	3.5	51
44	Monte Carlo study of hydrodynamic properties of flexible linear chains: analysis of several approximate methods. Macromolecules, 1984, 17, 2715-2722.	4.8	50
45	Calculation of NMR relaxation, covolume, and scattering-related properties of bead models using the SOLPRO computer program. European Biophysics Journal, 1999, 28, 119-132.	2.2	49
46	Global conformation analysis of irradiated xyloglucans. Carbohydrate Polymers, 2008, 74, 845-851.	10.2	49
47	Joint determination by Brownian dynamics and fluorescence quenching of the in-depth location profile of biomolecules in membranes. Analytical Biochemistry, 2002, 307, 1-12.	2.4	48
48	Hydrodynamics of segmentally flexible macromolecules. European Biophysics Journal, 1994, 23, 307-322.	2.2	47
49	Macromolecular crowding in biological systems: hydrodynamics and NMR methods. Journal of Molecular Recognition, 2004, 17, 397-407.	2.1	47
50	Molecular Dynamics Simulation of Water between Two Charged Layers of Dipalmitoylphosphatidylserine. The Journal of Physical Chemistry, 1996, 100, 8621-8627.	2.9	46
51	Transport properties of oligomeric subunit structures. Biopolymers, 1981, 20, 129-139.	2.4	45
52	HYDROMIC: prediction of hydrodynamic properties of rigid macromolecular structures obtained from electron microscopy images. European Biophysics Journal, 2001, 30, 457-462.	2.2	45
53	Conformation of myosin in dilute solution as estimated from hydrodynamic properties. Biochemistry, 1980, 19, 5118-5123.	2.5	44
54	Monte Carlo calculations for linear and star polymers with intramolecular interactions. 2. Nonpreaveraged study of hydrodynamic properties at the Î¸ state. Macromolecules, 1986, 19, 457-462.	4.8	44

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55	Global hydrodynamic analysis of the molecular flexibility of galactomannans. Carbohydrate Polymers, 2008, 72, 356-360.	10.2	44
56	Hydrodynamic properties of a double-helical model for DNA. Biophysical Journal, 1994, 66, 1573-1579.	0.5	42
57	Calculation of hydrodynamic properties of macromolecular bead models with overlapping spheres. European Biophysics Journal, 1999, 28, 510-515.	2.2	42
58	Characterization of Interactions in Aqueous Solutions of Hydroxyethylcellulose and Its Hydrophobically Modified Analogue in the Presence of a Cyclodextrin Derivative. Journal of Physical Chemistry B, 2006, 110, 6601-6608.	2.6	42
59	Building hydrodynamic beadâ€“shell models for rigid bioparticles of arbitrary shape. Biophysical Chemistry, 2001, 94, 265-274.	2.8	41
60	Intrinsic viscosity and rotational diffusion of bead models for rigid macromolecules and bioparticles. European Biophysics Journal, 1998, 27, 549-557.	2.2	38
61	Combined Use of NMR Relaxation Measurements and Hydrodynamic Calculations To Study Protein Association. Evidence for Tetramers of Low Molecular Weight Protein Tyrosine Phosphatase in Solution. Journal of the American Chemical Society, 2003, 125, 916-923.	13.7	38
62	Hydrodynamic Properties of Wormlike Macromolecules: Monte Carlo Simulation and Global Analysis of Experimental Data. Macromolecules, 2011, 44, 5788-5797.	4.8	38
63	Hydrodynamic resistance and diffusion coefficients of segmentally flexible macromolecules with two subunits. Journal of Chemical Physics, 1983, 78, 2081-2090.	3.0	37
64	Single Fusion Events at Polarized Liquidâ€“Liquid Interfaces. Angewandte Chemie - International Edition, 2017, 56, 782-785.	13.8	36
65	Steady-state and transient electric birefringence of solutions of bent-rod macromolecules. Biopolymers, 1982, 21, 1857-1871.	2.4	35
66	Calculation of the solution properties of flexible macromolecules: methods and applications. European Biophysics Journal, 2003, 32, 477-486.	2.2	35
67	A Multiscale Scheme for the Simulation of Conformational and Solution Properties of Different Dendrimer Molecules. Journal of the American Chemical Society, 2009, 131, 8548-8556.	13.7	35
68	Comparison of Brownian dynamics algorithms with hydrodynamic interaction. Journal of Chemical Physics, 2011, 135, 084116.	3.0	34
69	Deformation, orientation, and scattering from polymer chains in shear flow. A Brownian dynamics simulation study. Macromolecules, 1992, 25, 3574-3580.	4.8	33
70	Molecular Flexibility of Methylcelluloses of Differing Degree of Substitution by Combined Sedimentation and Viscosity Analysis. Macromolecular Bioscience, 2008, 8, 1108-1115.	4.1	33
71	Simulation of polymer chains in elongational flow. Steadyâ€state properties and chain fracture. Journal of Chemical Physics, 1991, 95, 9384-9392.	3.0	32
72	Transport properties of rigid bent-rod macromolecules and of semiflexible broken rods in the rigid-body treatment. Analysis of the flexibility of myosin rod. Biophysical Journal, 1988, 54, 269-275.	0.5	31

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73	Hydrodynamic interaction effects in the rheological properties of Hookean dumbbells in steady shear flow: a Brownian dynamics simulation study. Polymer, 1989, 30, 259-264.	3.8	31
74	Analytical ultracentrifugation studies of oligomerization and DNA-binding of TtCarH, a Thermus thermophilus coenzyme B12-based photosensory regulator. European Biophysics Journal, 2013, 42, 463-476.	2.2	31
75	Anaesthetic Mechanism on a Model Biological Membrane:â€‰ A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 1998, 102, 625-631.	2.6	30
76	SIMUFLEX: Algorithms and Tools for Simulation of the Conformation and Dynamics of Flexible Molecules and Nanoparticles in Dilute Solution. Journal of Chemical Theory and Computation, 2009, 5, 2606-2618.	5.3	30
77	Characterization of polyelectrolyte features in polysaccharide systems and mucin. Advances in Colloid and Interface Science, 2010, 158, 108-118.	14.7	30
78	Reinvestigation of the shape and state of hydration of the skeletal myosin subfragment 1 monomer in solution. Biochemistry, 1983, 22, 4961-4969.	2.5	29
79	Simulation of the conformation and dynamics of a double-helical model for DNA. Biophysical Journal, 1997, 73, 3142-3153.	0.5	29
80	Novel Size-Independent Modeling of the Dilute Solution Conformation of the Immunoglobulin IgG Fabâ€² Domain Using SOLPRO and ELLIPS. Biophysical Journal, 1999, 77, 2902-2910.	0.5	29
81	Hydrodynamic modelling of protein conformation in solution: ELLIPS and HYDRO. Biophysical Reviews, 2013, 5, 195-206.	3.2	29
82	The Protein Acetyltransferase PatZ from Escherichia coli Is Regulated by Autoacetylation-induced Oligomerization. Journal of Biological Chemistry, 2015, 290, 23077-23093.	3.4	29
83	Effect of lithium and sodium ions on a charged membrane of dipalmitoylphosphatidylserine: A study by molecular dynamics simulation. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1330, 145-156.	2.6	28
84	Effect of Water Deficit and Domestic Storage on the Procyanidin Profile, Size, and Aggregation Process in Pear-Jujube (Z. jujuba) Fruits. Journal of Agricultural and Food Chemistry, 2013, 61, 6187-6197.	5.2	28
85	Influence of ionic strength on the flexibility of alginate studied by size exclusion chromatography. Carbohydrate Polymers, 2014, 102, 223-230.	10.2	28
86	Brownian dynamics simulation of flexible polymer chains with excluded volume and hydrodynamic interactions. A comparison with Monte Carlo and theoretical results. Polymer, 1992, 33, 3477-3481.	3.8	27
87	Interpretation of NMR relaxation properties of Pin1, a two-domain protein, based on Brownian dynamic simulations. Journal of Biomolecular NMR, 2004, 29, 21-35.	2.8	27
88	MULTIHYDRO and MONTEHYDRO: Conformational search and Monte Carlo calculation of solution properties of rigid or flexible bead models. Biophysical Chemistry, 2005, 116, 121-128.	2.8	27
89	Molecular dynamics simulation of a dye molecule in the interior of a bilayer: 1,6-diphenyl-1,3,5-hexatriene in dipalmitoylphosphatidylcholine. Biophysical Chemistry, 1997, 69, 1-8.	2.8	26
90	Efficient, Accurate Calculation of Rotational Diffusion and NMR Relaxation of Globular Proteins from Atomic-Level Structures and Approximate Hydrodynamic Calculations. Journal of the American Chemical Society, 2005, 127, 12764-12765.	13.7	26

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91	Monte Carlo calculations for linear chains and star polymers with intramolecular interactions. 4. Dimensions and hydrodynamic properties below the .THETA. state. Macromolecules, 1987, 20, 2385-2390.	4.8	25
92	Monte Carlo calculation of hydrodynamic properties of cyclic polymers in ideal solution. Macromolecules, 1990, 23, 3357-3362.	4.8	25
93	Non-Newtonian Viscosity of Dilute Polymer Solutions. Macromolecules, 2005, 38, 1371-1377.	4.8	25
94	Steady-state behavior of ring polymers in dilute flowing solutions via Brownian dynamics. Polymer, 2005, 46, 267-274.	3.8	24
95	Prediction of Hydrodynamic and Other Solution Properties of Partially Disordered Proteins with a Simple, Coarse-Grained Model. Journal of Chemical Theory and Computation, 2013, 9, 1678-1685.	5.3	23
96	Theoretical prediction of translational diffusion coefficients of small rigid molecules from their molecular geometry. The Journal of Physical Chemistry, 1987, 91, 3612-3616.	2.9	22
97	Simulation of polymer chains in elongational flow. Kinetics of chain fracture and fragment distribution. Journal of Chemical Physics, 1992, 97, 4549-4554.	3.0	22
98	Simulation of non-linear models for polymer chains in flowing solutions. Polymer, 1995, 36, 345-351.	3.8	22
99	Kinetic aspects of the coil-stretch transition of polymer chains in dilute solution under extensional flow. Journal of Chemical Physics, 2001, 115, 9578-9584.	3.0	22
100	Approximate methods for calculating hydrodynamic properties of macromolecules in dilute solution. Theory and application to rigid structures. Macromolecules, 1983, 16, 1121-1127.	4.8	21
101	Brownian dynamics of a flexible polymer. Internal modes and quaiselastic scattering function. Journal of Chemical Physics, 1989, 90, 2035-2041.	3.0	21
102	Distribution and diffusivity of a hydrophobic probe molecule in the interior of a membrane: theory and simulation. Biophysical Journal, 1996, 71, 1428-1439.	0.5	21
103	Effect of polyethylene glycol (PEG) length on the association properties of temperature-sensitive amphiphilic triblock copolymers (PNIPAAMm-b-PEGn-b-PNIPAAMm) in aqueous solution. Soft Matter, 2011, 7, 8111.	2.7	21
104	Simulation of the rotational Brownian dynamics of a simple, segmentally flexible model: The elastic trumbbell. Journal of Chemical Physics, 1988, 88, 7698-7705.	3.0	20
105	Hydrodynamic interaction effects on the conformation of flexible chains in simple shear flow. Macromolecules, 1990, 23, 809-813.	4.8	20
106	Translational diffusion, relaxation times, and quasi-elastic scattering of flexible chains with excluded volume and fluctuating hydrodynamic interactions: a Brownian dynamics study. Macromolecules, 1991, 24, 4666-4672.	4.8	20
107	Intrinsic viscosity of bead models for macromolecules and nanoparticles. European Biophysics Journal, 2010, 39, 381-388.	2.2	20
108	Diffusion coefficients of segmentally flexible macromolecules with two sphrical subunits. Biopolymers, 1985, 24, 2145-2164.	2.4	19

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109	Diffusion coefficients of segmentally flexible macromolecules with two subunits: A study of broken rods. Biopolymers, 1988, 27, 1771-1786.	2.4	19
110	Computer simulation of hydrodynamic properties of semiflexible macromolecules: Randomly broken chains, wormlike chains, and analysis of properties of DNA. Biopolymers, 1990, 29, 883-900.	2.4	19
111	Conformation and Fracture of Polystyrene Chains in Extensional Flow Studied by Numerical Simulation. Macromolecules, 1996, 29, 3603-3610.	4.8	19
112	Gaussian chains with excluded volume and hydrodynamic interaction: shear rate dependence of radius of gyration, intrinsic viscosity and flow birefringence. Polymer, 1996, 37, 1317-1322.	3.8	19
113	Aggregation behaviour of gold nanoparticles in presence of chitosan. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	19
114	Approximate methods for calculating rotational diffusion constants of rigid macromolecules. Macromolecules, 1987, 20, 661-666.	4.8	18
115	Organization of Human Interferon Î³â^'Heparin Complexes from Solution Properties and Hydrodynamicsâ€. Biochemistry, 2006, 45, 13227-13238.	2.5	18
116	Brownian dynamics simulation of restricted rotational diffusion. Biophysical Journal, 1987, 52, 303-310.	0.5	17
117	Relaxation times in transient electric birefringence and electricâ€field light scattering of flexible polymer chains. Journal of Chemical Physics, 1995, 103, 7631-7639.	3.0	17
118	Crystallohydrodynamics of Protein Assemblies: Combining Sedimentation, Viscometry, and X-Ray Scattering. Biophysical Journal, 2006, 91, 1688-1697.	0.5	17
119	Hydrodynamic Analysis of Well-Defined Flexible Linear Macromolecules of Low Molar Mass. Macromolecules, 2009, 42, 7447-7455.	4.8	17
120	Brownian dynamics simulation of rotational correlation functions of simple rigid models. Journal of Chemical Physics, 1987, 87, 6021-6028.	3.0	16
121	Brownian dynamics of nonlinear Gaussian chains with fluctuating hydrodynamic interactions. 1. Star chains. Macromolecules, 1990, 23, 3948-3953.	4.8	16
122	Viscoelastic properties of simple flexible and semirigid models from Brownian dynamics simulation. Macromolecules, 1990, 23, 3144-3149.	4.8	16
123	Shear-rate dependence of the intrinsic viscosity of bead-and-spring chains: hydrodynamic interaction and excluded-volume effects. Polymer, 1991, 32, 3359-3363.	3.8	16
124	Hydrodynamic Properties of Biomacromolecules and Macromolecular Complexes: Concepts and Methods. A Tutorial Mini-review. Journal of Molecular Biology, 2020, 432, 2930-2948.	4.2	16
125	Dynamic electro-optic properties of macromolecules and nanoparticles in solution: A review of computational and simulation methodologies. Colloids and Surfaces B: Biointerfaces, 2007, 56, 4-15.	5.0	15
126	Brownian dynamics simulation of polyelectrolyte dilute solutions under shear flow. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1-9.	2.1	15

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127	Single-Molecule Behavior of Asymmetric Thermoresponsive Amphiphilic Copolymers in Dilute Solution. Journal of Physical Chemistry B, 2010, 114, 8887-8893.	2.6	15
128	Translational diffusion coefficients of macromolecules. European Physical Journal E, 2012, 35, 9806.	1.6	15
129	Hydrodynamic properties of flexible branched chains. Monte Carlo nonpreaveraged calculations for stars and preaveraged results for combs. Macromolecules, 1984, 17, 1815-1821.	4.8	14
130	The randomly broken chain as a semiflexible macromolecular model. Computer simulation of statistical properties. Journal of Chemical Physics, 1986, 84, 4026-4030.	3.0	14
131	Brownian dynamics simulation of the unsaturated lipidic molecules oleic and docosahexaenoic acid confined in a cellular membrane. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1565, 29-35.	2.6	14
132	Shape Analysis of DNAâ€“Au Hybrid Particles by Analytical Ultracentrifugation. ACS Nano, 2016, 10, 7418-7427.	14.6	14
133	Radius of gyration of multisubunit macromolecules: application to myosin heads, myosin rod and whole myosin. International Journal of Biological Macromolecules, 1988, 10, 39-43.	7.5	13
134	Hydrodynamic study of flexibility in immunoglobulin igG1 using Brownian dynamics and the Monte Carlo simulations of a simple model. Biopolymers, 1990, 30, 547-554.	2.4	13
135	Estimating domain orientation of two human antibody IgG4 chimeras by crystallohydrodynamics. European Biophysics Journal, 2003, 32, 503-510.	2.2	13
136	Multiple Linear Least-Squares Fits with a Common Intercept: Determination of the Intrinsic Viscosity of Macromolecules in Solution. Journal of Chemical Education, 2003, 80, 1036.	2.3	13
137	Improved simulation method for the calculation of the intrinsic viscosity of some dendrimer molecules. Polymer, 2007, 48, 1155-1163.	3.8	13
138	New short cationic antibacterial peptides. Synthesis, biological activity and mechanism of action. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183665.	2.6	13
139	Intrinsic viscosities and translational diffusion coefficients of n-alkanes in solution. Macromolecules, 1982, 15, 155-159.	4.8	12
140	Flow birefringence of flexible polymer chains in steady shear flow: a Brownian dynamics simulation. Macromolecules, 1993, 26, 3851-3857.	4.8	12
141	Transient Orientation and Electrooptical Properties of Axially Symmetric Macromolecules in an Electric Field of Arbitrary Strength. The Journal of Physical Chemistry, 1996, 100, 9900-9905.	2.9	12
142	Multi-scale calculation and global-fit analysis of hydrodynamic properties of biological macromolecules: determination of the overall conformation of antibody IgG molecules. European Biophysics Journal, 2010, 39, 361-370.	2.2	12
143	Sedimentation coefficient and x-ray scattering of a double-helical model for deoxyribonucleic acid. The Journal of Physical Chemistry, 1976, 80, 2028-2035.	2.9	11
144	Brownian dynamics simulation of reversible polymer networks using a non-interacting bead-and-spring chain model. Journal of Non-Newtonian Fluid Mechanics, 2007, 146, 3-10.	2.4	11

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145	Brownian dynamics simulation of polyelectrolyte dilute solutions: Relaxation time and elongational flow. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 714-722.	2.1	11
146	Global fit and structure optimization of flexible and rigid macromolecules and nanoparticles from analytical ultracentrifugation and other dilute solution properties. Methods, 2011, 54, 115-123.	3.8	11
147	Bead-model calculation of scattering diagrams: Brownian dynamics study of flexibility in immunoglobulin IgG1. Journal of Proteomics, 1993, 26, 261-271.	2.4	10
148	Deformation, scattering, and birefringence of flexible polymer chains under external forces or electric fields. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 689-697.	2.1	10
149	Steady-state behavior of star polymers in dilute flowing solutions via Brownian dynamics. Polymer, 2005, 46, 6756-6766.	3.8	10
150	Hydrodynamic Models and Computational Methods for NMR Relaxation. Methods in Enzymology, 2005, 394, 419-430.	1.0	10
151	Brownian dynamics simulation of analytical ultracentrifugation experiments. BMC Biophysics, 2011, 4, 6.	4.4	10
152	Estimation of the shape and size of fribrinogen in solution from its hydrodynamic properties using theories for bead models and cylinders. International Journal of Biological Macromolecules, 1984, 6, 261-265.	7.5	9
153	Simulation of Fracture of Flexible Polymer Chains in Transient Elongational Flow. Macromolecules, 1995, 28, 4660-4664.	4.8	9
154	Conformation and dynamic properties of a saturated hydrocarbon chain confined in a model membrane: a Brownian dynamics simulation. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1463, 131-141.	2.6	9
155	Methods and Tools for the Prediction of Hydrodynamic Coefficients and Other Solution Properties of Flexible Macromolecules in Solution. A Tutorial Minireview. Macromolecular Bioscience, 2010, 10, 721-730.	4.1	9
156	Prediction of solution properties and dynamics of RNAs by means of Brownian dynamics simulation of coarse-grained models: Ribosomal 5S RNA and phenylalanine transfer RNA. BMC Biophysics, 2015, 8, 11.	4.4	9
157	The chondroitin sulfate/dermatan sulfate 4-O-endosulfatase from marine bacterium Vibrio sp FC509 is a dimeric species: Biophysical characterization of an endosulfatase. Biochimie, 2016, 131, 85-95.	2.6	9
158	Rotational Diffusion Coefficients. , 1981, , 75-103.		9
159	Rotational diffusion coefficients of a small, spherical subunit flexibly tethered to a larger sphere. European Biophysics Journal, 1987, 14, 493-498.	2.2	8
160	Buildup of electrooptic properties of axially symmetric macromolecules in fields of arbitrary strength studied by Brownian dynamics simulation. The Journal of Physical Chemistry, 1991, 95, 952-955.	2.9	8
161	A Brownian Dynamics Simulation of an Acyl Chain and atrans-Parinaric Acid Molecule Confined in a Phospholipid Bilayer in the Gel and Liquid-Crystal Phases. Journal of Physical Chemistry B, 2000, 104, 11579-11584.	2.6	8
162	Orientation of Polymer Chains in Dilute Solution under Shear: Effect of Chain Model and Excluded Volume. Macromolecular Theory and Simulations, 2004, 13, 273-279.	1.4	8

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163	The Histidine-Phosphocarrier Protein of the Phosphoenolpyruvate: Sugar Phosphotransferase System of Bacillus sphaericus Self-Associates. PLoS ONE, 2013, 8, e69307.	2.5	8
164	Conformational properties of hinged and wormlike rods: a comparative study. International Journal of Biological Macromolecules, 1984, 6, 170-174.	7.5	7
165	Hydrodynamic properties of short poly(dimethylsiloxane) chains. Numerical results and comparison with experimental data. Macromolecules, 1987, 20, 1619-1626.	4.8	7
166	Frequencyâ€dependent viscosity of linear, ring, and star Gaussian chains with fluctuating hydrodynamic interactions. Journal of Chemical Physics, 1990, 92, 6278-6282.	3.0	7
167	Birefringence, Deformation, and Scattering of Segmentally Flexible Macromolecules under an External Agent. Steady-State Properties in an Electric Field. Journal of Physical Chemistry B, 1999, 103, 7822-7830.	2.6	7
168	Studying Antibody Conformations by Ultracentrifugation and Hydrodynamic Modeling. , 2004, 248, 93-114.		7
169	Multi-Scale Simulation of Hyperbranched Polymers. Polymers, 2015, 7, 610-628.	4.5	7
170	Application of recent advances in hydrodynamic methods for characterising mucins in solution. European Biophysics Journal, 2016, 45, 45-54.	2.2	7
171	The Effect of Number of Arms on the Aggregation Behavior of Thermoresponsive Poly(N) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	2.1	7
172	A bead and spring model for the stiffness of DNA. Biopolymers, 1975, 14, 1327-1335.	2.4	6
173	Electric birefringence of segmentally flexible macromolecules with two subunits at arbitrary field strengths. Journal of Chemical Physics, 1989, 90, 5190-5197.	3.0	6
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